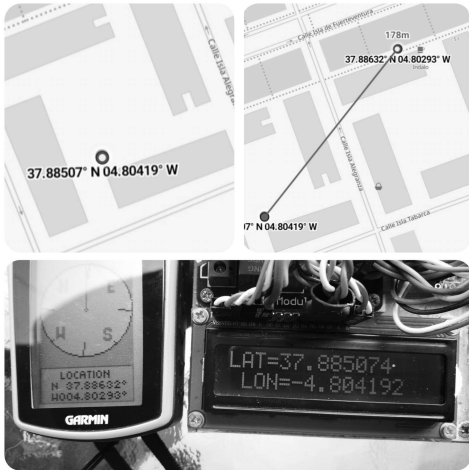# TinyTrackGPS

A simple track GPS to SD card logger.

This program is written in C for Arduino © UNO R3 and other compatible microcontrollers based on Atmega328 and similar.
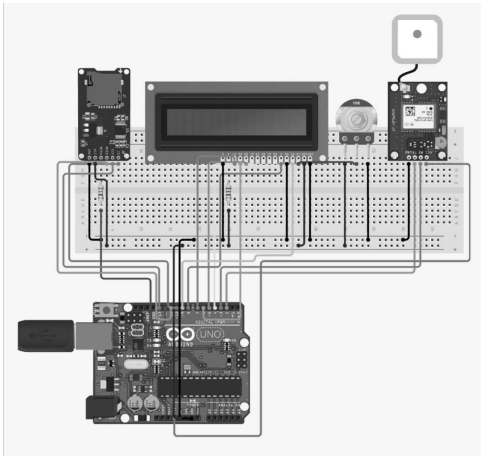
It is tested on:

- UNO R3 board (Arduino UNO compatible board based on Atmega328).
- Lgt8f328p (a replacement Arduino Pro Mini).

License GPLv3

List of componets

This project use components list above:

- Arduino © UNO board or equivalent AVR.
- NMEA 6 module.
- MicroSD module.
- LCD 16×2 char display module.
- Bluetooth module. (Optional)

Source

TinyTrackGPS is free software, see **License** section for more information. The code is based and get parts of the libraries above:

- TinyGPS library, Mikal Hart (https://github.com/mikalhart/TinyGPS).
- SD library, Arduino Standard Libraries (Arduino IDE).
- SoftwareSerial library, Arduino Standard Libraries (Arduino IDE).
- LiquidCrystal library, Arduino Standard Libraries (Arduino IDE).

Working

It works getting info from NMEA module every second and save it into de log file. Format is:
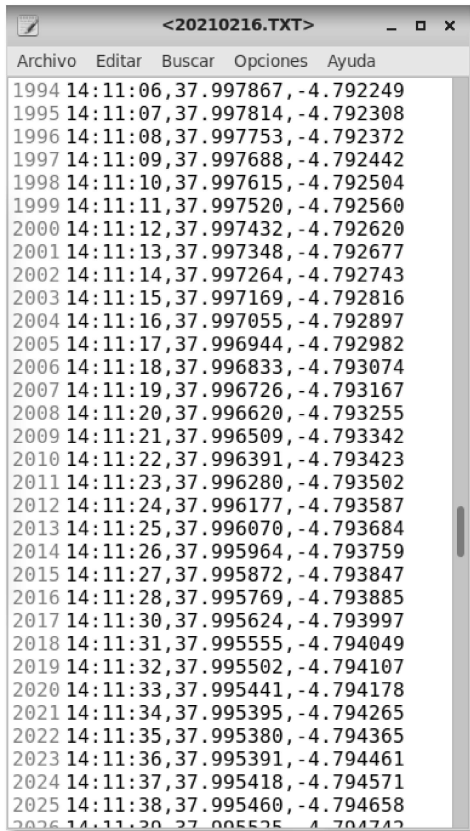
```
HH:MM:SS,YY.YYYYYY,XX.XXXXXX
```

Like this:

```
06:11:45,38.002368,-4.792312
06:11:46,38.002414,-4.792322
06:11:47,38.002452,-4.792317
06:11:48,38.002483,-4.792314
...
```

Where:

- HH - Hours from GPS UTC.

- MM - Minutes.

- SS - Seconds.

- YY.YYYYYY - Degree of latitude.

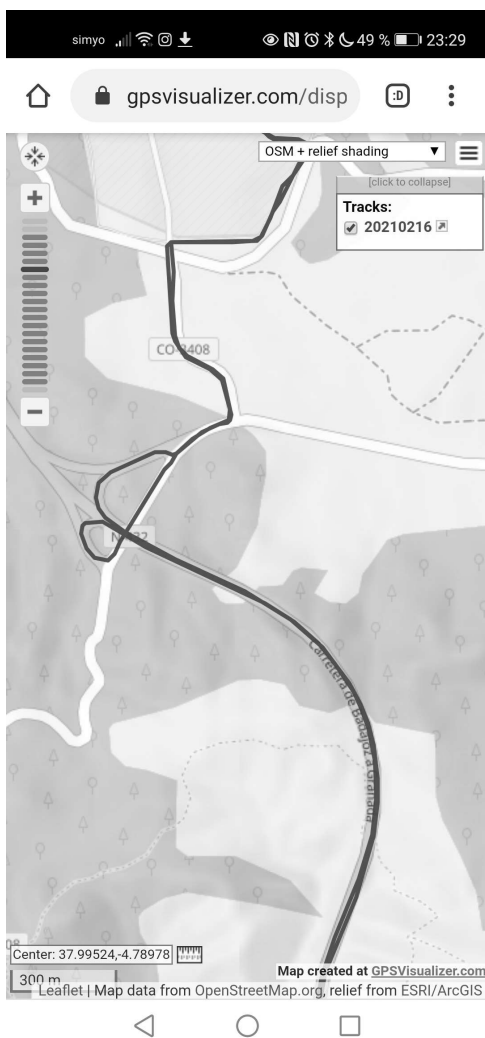- XX.XXXXXX - Degree of longitude.

File is named as:

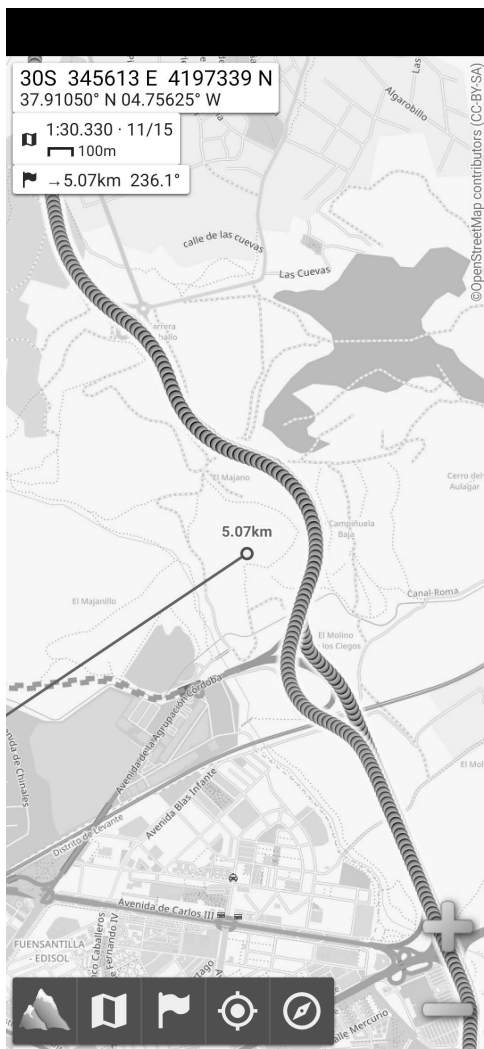`YYYYMMDD.csv` Example: `20210216.csv`

Where:

- YYYY - Year 4 digits format.

- MM - Mouth.

- DD - Day.

Draw track on map

You can upload the file and get the draw on a map using GPS Visualizer.

Or using apps like AlpineQuest.

License

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Authors

Credits

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